

REMARKS

The office action of June 6, 2007, has been carefully considered.

It is noted that claim 14 is rejected under 35 U.S.C. 112, second paragraph.

Claims 11, 12 and 14-16 are rejected under 35 U.S.C. 103(a) over the patent to Read in view of the patent to Kobayashi et al. and the patent to Shearon.

Claim 17 is rejected under 35 U.S.C. 103(a) over Read in view of Kobayashi et al. and Shearon, and further in view of GP '919.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) over GP '919 in view of Read and Shearon.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) over Read in view of GP '919 or the patent to Obenshain, and in view of Shearon.

In view of the Examiner's rejections of the claims, applicant

has amended claim 14.

It is respectfully submitted that the claims now on file particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended the claims to address the instances of indefiniteness pointed out by the Examiner.

In view of these considerations it is respectfully submitted that the rejection of claim 14 under 35 U.S.C. 112, second paragraph is overcome and should be withdrawn.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the methods and constructions disclosed in the references.

Turning now to the references and particularly to the patent to Shearon, it can be seen that this patent discloses a rotary web chopper. The device of Shearon is for high speed transverse separation of individual sheets from a continuous web using cooperating cutters arranged on oppositely rotating shafts. The web is fastened and wrapped around one of the cutting wheels. The

blade on the other shaft has a shaped outer surface that defines an epitrochoidal profile along its entire length. The blade on the other shaft has a straight cutting edge that defines an accurate cutting edge. The Shearon patent concerns itself with the provision of a vacuum to the knife drum of the type taught by Shearon. The Shearon patent has no disclosure concerning a device for guiding and supporting sheet metal or metal strip as is taught by the presently claimed invention. Furthermore, the web wraps around a plurality of rolls before it is separated by the knife 18. Since the knife dips into the counter roll 34, the web must be blown out of the counter roll 34. This is accomplished by the jets 51, which are only provided in the counter roll 34. This is shown in Figs. 12a to 12f. The knife roll 29 has no jets. Additionally, the web is not supported by the jets, but instead is only blown out of the cutting region.

The patent to Kobayashi et al. discloses an apparatus and method for cutting a fabric web with a rotating cutter including a cutting roll having a suction chamber and an exhaust chamber. The chambers are arranged in the interior of the roll and are provided with first, second and third air jet openings that are provided with openings in the outer periphery of the knife drum. Furthermore, the jets do not serve to support the web, but instead

are provided to loosen the web from the knife drum or prevent the web from attaching to the knife drum.

The patent to Read discloses means for controlling and directing moving sheets or webs. This patent also deals with fabric webs. Thin sheet metal and metal strip are considerably heavier than fabric or paper webs and thus a reference that deals with fabric or paper webs provides no teaching concerning metal sheet or metal strip and also provides no motivation for a method dealing with metal in view of the completely different conditions being dealt with that are not faced with fabric and paper. Furthermore, in Read the web W is transported vertically. Due to its own weight the web is guided to the gap between the two cutting rolls. Only under the blade is the web impacted by left and right jets so that the web is folded in a guide direction 1. Contrary to the present invention, the jets of Read do not support the web since the web is not placed on a conveying device, but instead hangs freely.

The Examiner combined Read with Kobayashi et al. and Shearon in determining that claims 11, 12 and 14-16 would be unpatentable over such a combination. Applicant respectfully submits that none of these references, taken alone or in combination, provides any

teaching concerning a method for guiding and supporting a thin sheet metal or metal strip during transport across a conveying device and through drums selected from the group consisting of a transport drum and a blade carrier drum during, before or after a cutting process carried out by shears using jets, as in the presently claimed invention. Without some teaching concerning supporting metal strip or sheet metal with jets, the references do not teach or suggest the present invention.

In view of these considerations it is respectfully submitted that the rejection of claims 11, 12 and 14-16 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

German reference DE 944 919 discloses a transverse cutting of paper webs. An air jet 10 is only located in the lower knife roll 5. This jet 10 is intended to lift the front edge of the cut paper web from the cutting blade. There is no suggestion of a support or guiding function by the jet(s). There is no teaching, as found in the presently claimed invention, of jet nozzles in the upper and lower drums both before and after the blades for lifting and supporting a metal strip. Furthermore, the metal strip of the present invention is transported by its own weight to the rollers

of the transport device 10, whereas in the reference the paper web, after cutting, must be transported between an upper and lower transport belt.

The Examiner combined DE '919 with Read and Shearon in determining that claims 19 and 20 would be unpatentable over such a combination. Applicant respectfully submits that none of these references, taken alone or in combination, provides any teaching concerning a method for guiding and supporting a thin sheet metal or metal strip during transport across a conveying device and through drums selected from the group consisting of a transport drum and a blade carrier drum during, before or after a cutting process carried out by shears using jets, as in the presently claimed invention. Without some teaching concerning supporting metal strip or sheet metal with jets, the references do not teach or suggest the present invention.

In view of these considerations it is respectfully submitted that the rejection of claims 19 and 20 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

The patent to Obenshain has also been considered. This

reference also does not teach the invention as discussed previously in connection with the other rejections. Furthermore, Obenshain adds nothing to the teachings of Read and Shearon so as to arrive at the presently claimed invention. Applicant respectfully submits that none of these references, taken alone or in combination, provides any teaching concerning a method for guiding and supporting a thin sheet metal or metal strip during transport across a conveying device and through drums selected from the group consisting of a transport drum and a blade carrier drum during, before or after a cutting process carried out by shears using jets, as in the presently claimed invention. Without some teaching concerning supporting metal strip or sheet metal with jets, the references do not teach or suggest the present invention.

In view of these considerations it is respectfully submitted that the rejection of claims 19 and 20 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.



**HM-388**

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By

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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being sent by facsimile to Examiner Clark F. Dexter in Art Unit 3724 of the U.S. Patent and Trademark Office at (703)872-9306 on November 6, 2007.

By:

  
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